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Classroom Enrichment Through Pupil Specialties

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Chapter I

Values in Pupil Specialties

PUPIL SPECIALTIES are suggested in this bulletin as a desirable way to give the child experience in directing his own learning. It is not expected that a program of pupil specialties will replace all teaching or fit all types of learning. Specialties among pupils are presented as a promising balance to a program in which uniformity of assignments is too often the rule. Specialties of short or long duration, of intensive development or of casual and temporary interest, related to classroom studies or only to individual taste, have excellent possibilities which deserve investigation.

Specialties in learning have many things to recommend them. They provide one of many ways to adjust instruction to the superior pupil who often is unchallenged by classroom assignments. They provide a desirable diversity in education, which is important to a world which needs a variety of approaches in solving its problems. They emphasize the importance of the individual, a concept which is basic to democracy and to western religions. They direct attention to individual initiative and personal disciplines, important to vocational achievement and to self-direction in the growing amount of leisure time.

This bulletin presents some of the values which may be derived from specialties, classroom techniques and topics which lend themselves to specialties, and the results of an experiment emphasizing pupil specialties in twelve intermediate grade classrooms. It is offered as a stimulus to thinking and practice in the use of pupil specialties and as a starting point for research in evaluating the results of programs which emphasize such specialties.

Values of Specialties for the Gifted Pupil

The most important finding from the use of objective measures in education is that pupils of the same age and school grade differ greatly in mental age, in school achievement, in interests, and in almost every other phase of development. Equally important are the studies in educational method which show increased learning when instruction is adjusted to the achievement level, learning rate, and special needs of the individual. Despite this knowledge, and despite the development of many educational approaches to individualizing instruction, uniformity in curriculum, in daily assignments, and in methods of instruction is too often the rule in many classrooms.

Bright pupils have a special risk in mass education. Work not sufficiently difficult or challenging leaves them with low achievement in relation to ability. They may fail to attain the breadth and depth of knowledge of which they are capable. In addition, work habits may be dulled by lack of effort required, and personal qualities affected through snobbishness or social isolation resulting from the unfair competition they provide in uniform assignments. Pupil specialties have a particular service to perform in making the work challenging to the bright pupil, in raising instruction to his level of ability, in enriching the curriculum

beyond the basic offering, in opening new interests, and in establishing the value of the bright child to the group. If the results of specialties are used well, all pupils will be enriched by the presence of superior learners.

Since rate of learning is a relative matter, many pupils who are above the average of their fellows, even though they may not be especially gifted, will find time for specialties after completing regular assignments. All children should have significant individual work to fill time which otherwise might be lost in waiting for slower learners to finish their work.

Specialties as a Means of Providing Variety in Educational Backgrounds

Diversity is one of the main strengths of a democracy. Differences in approach and in specialized experience and knowledge, increase the probability of ultimate solution to the problems of the community, the nation, and the world. Since we have few services and products which are perfect, and since we fall far short of perfection in any field of knowledge or practice, we need as many different approaches to improvement as we can discover. The main value of freedom is the faith that it will lead to advancement of the lot of man. This is the root of our belief in free enterprise, in academic freedom, in the search for truth in all areas. If we are to discover the eternal laws of man and matter and learn to utilize them and conduct ourselves in relation to them, diversity of approach is highly important. Controversy and competition may be excellent instruments for advancement of mankind. Standardization, uniformity, and over-control of approach diminish the chance of improvement of the lot of society.

Although there is much value in common education, we have a tendency to over-standardize our offering. Whenever a committee on curriculum convenes, its first thought is often a search for agreement in areas where there should be no agreement. With so many areas of knowledge from which to choose, who knows what should be taught? While we can agree upon the "three r's," communication skills, and certain personal and social qualities as educational objectives, we are not as clear on the values of information in many subject areas. Almost any type of specialized knowledge may be of ultimate value. While curricula and courses of study are essential, they are necessarily limited in their breadth and depth. We need much more pioneering and adventure in variety of educational offering; certainly no one can assert that our current curricula yield perfection of product.

Pupil specialties offer possibilities of diversification in a set curriculum. All of our natural sciences, our humanities, and our social sciences have countless avenues for special study and interest at almost every level of school achievement. Early contact with these varied fields may lead to vocational and avocational choices desirable for the individual and for society. The presence of fellow pupils who are opening these many possibilities of interest cannot fail to reveal opportunities for learning beyond the narrow limits of a prescribed course of study.

Child Development Objectives and Pupil Specialties

Personal and social qualities are considered more important outcomes

of education than are elements of specific knowledge. This does not mean that specific knowledge is unimportant, that character values may be developed in an intellectual vacuum, or that the disciplines of scholarship may be ignored. The most fruitful education will be rich in specific learnings and will emphasize the disciplines of study.

Since descriptions of character values contain many desirable specific traits and descriptions of conduct, it is difficult to condense them into a single concise statement. Three areas may be taken as typical: the development of initiative in a variety of tastes and interests; the development of standards and disciplines of workmanship; the development of social responsibility.

Initiative and self-direction in learning is of the highest importance to the individual, especially when one considers the long learning period after the end of formal education. If education consists of the completion of assignments set by the teacher, education may end when no more assignments are set. While one's occupation or responsibilities may replace the teacher as a director of learning, the use of leisure will not be so directed. Pupil specialties give practice in the independent pursuit of learning, typical of the situation in which the individual will find himself during vacations and at the end of formal schooling. Specialties are the best defense against the time-killing use of television, non-purposive reading, and other activities in which the role of a casual spectator and daydreamer is taken.

A variety of interests may not appear to be a natural outcome of an educational program which encourages specialties; in fact, specialties by definition seem to be narrowing rather than broadening. Being a member of a group in which there are individuals who have different enthusiasms, however, provides stimulus for broadening tastes. Enthusiasm is contagious, and as different students converse about their specialties, display their collections and discoveries, the wide possibilities for interesting inquiry is evident. Two classroom friends, one specializing in the repair of electrical appliances, and one in oil painting, will each benefit from the other's interest. Growth in vocabulary, in techniques, and in interests should be a logical result. The contrast should not be made between specialization and general education; it is not contemplated that specialties will replace the curriculum. The choice is between uniformity of classroom task, and diversity of interests in the group. The classroom enriched by many pupil specialties would appear to provide greater possibilities for acquiring a variety of interests. While it is possible that specialties might be pursued with such intensity that all other interests would be excluded, sensible guidance by the teacher should make this less likely. Variety in interests must be presented as a desirable objective to students.

The development of standards and disciplines of workmanship is favored by a specialties program. When one is deeply committed to a task, he is more apt to hold himself to high standards. When he is merely one of several pupils who is studying the same task, disciplines are more likely to be coerced than self-directed. Pride in workmanship is an excellent stimulus to effort; it is more likely to

arise when one is pursuing an independent task, particularly if the results are to be viewed by his fellows. The slow learner is particularly helped by having a specialty in which he can demonstrate superior knowledge; the bright pupil will find that there are many aspects of his specialty which challenge his best efforts. Although the pursuit of a specialty is not the only path to the acquiring of self-discipline, nor are good standards of workmanship necessarily assured in specialties, there is a greater likelihood of such attainment when the pupil's responsibility is individual.

How may habits of social responsibility be acquired through the pursuit of specialties? The specialist is condemned in much current discussion as being without social vision, a danger rather than a help to social progress. There seems to be little objective evidence of the truth of this assumption; isolated cases and imaginary situations only are offered in its support. One might expect quite the reverse, in considering the greater stake the specialist has in a society which encourages group and individual welfare. It must be emphasized again, however, that the elimination of general education is not proposed; specialties are encouraged as a counter-balance to uniformity. The addition of specialties to a curriculum should add values to the entire group.

A feeling of unique attainment makes the person more likely to acquire gracious conduct. The person who feels defeated in every classroom activity is an excellent candidate for delinquency and anti-social conduct. Since the wide range of abilities in any classroom forces all but the very brightest to take lower places in classroom competition, the wide encouragement of specialties should make each pupil feel important. The result should be an enrichment of group spirit, a feeling of belonging to a co-operative society. Since everyone has something unique to offer, each should be welcomed by his fellows. In the experiment reported in Chapter 3, the measurement of change of attitudes of pupils toward each other was considered especially important.

Specialties as a Corrective and Counterbalance in Education

Any system of uniform education is likely to omit or underemphasize information or abilities of value to society. Difference of opinion regarding curriculum content and emphasis is the primary source of much criticism of education. What one regards as non-essential, another feels highly significant. Every attempt at drawing up an educational plan for "all American youth" or for "life adjustment education" has been denounced as a lowering of standards, the elimination of fundamental knowledge, or a plot to undermine essential values. Even a proposal of a moderate addition of specialties will be denounced by some alarmists! Unless one assumes that our educational program is perfect for all people and for all time, however, changes in program are essential to progress. Whenever such changes are made, the encouragement of pupil specialties will serve as a partial corrective to mistakes made in the planning.

Although pupil interest has been accepted as a significant factor in curriculum planning and has been an important factor in placement of sub-

ject matter at the level where it has the highest appeal for children, it is unlikely that any course of study will fit all interests. The content of the textbook too often prescribes the diet for all pupils, regardless of the protestations of concern for building on pupil interest. If the content of the curriculum cannot interest every child, specialties allow adjustment to the interests of these children. If the content is narrow, and omits information of high importance, the specialty program opens the door to such information.

The greatest natural resource of any nation is its human talent. The discovery of special talent and its encouragement and development may be increased through a specialties program. If the main emphasis in the current public school curriculum is in social studies, the wide electives of natural science specialties among boys serves as a corrective. If the school program under-emphasizes art and music, the child with special talent may build his own emphasis upon them. Certainly any program which encourages wide use of specialties among pupils should discover and develop a greater variety of human talent than a uniform curriculum. Of course there is a danger in *limiting* a child to *temporary* interests, of developing talents less than his best, or of encouraging a single interest at the expense of more valuable ones. However, interests in specialties change with age, and new specialties replace the old.

Specialties enable the pupil to make his own correctives in the educational offering. If he considers the school content too vague and distant, his own specialty may be intensely practical. If there is too much talking and too little doing, his specialty may emphasize constructive activities. If vocational improvement is desired, his specialty can be vocational. If his interest is caught by any phase of the curriculum, he may pursue that subject more deeply. There will necessarily be adult guidance in choice of specialties, however, since there are many practical limitations which must be considered in specialties which are allied to a school program.

Public Acceptance of a Pupil Specialties Program

Fear of public criticism often prevents educational change. There need be no worry about a sensible program of pupil specialties. Any program which gives unique responsibilities to the individual, if the tasks are well chosen, will have parental approval. Every parent feels that his child is of particular importance and is pleased when special recognition is given. It is essential to the success of any school venture, however, that the public have confidence that the basic subjects are well taught. A school under general criticism in regard to teaching of the "three r's" will have little freedom for new ventures of any sort. It is interesting to note that in the experiment with approximately four hundred pupils reported in Chapter 3, there was not a single adverse criticism of the program from parents.

Experimental Evaluation of a Pupil Specialties Program

The present state of educational, psychological, and social measurement does not permit accurate measurement of many of the values indi-

cated above. However, in the experiment conducted in this study, various types of measures, rating scales, interviews, and observations were used to evaluate outcomes.

Through this evaluation answers of varying degrees of dependability were found for the following questions as they relate to the 349 pupils in grades four, five and six in a single community:

1. Have most pupils developed specialties outside of school? Are parents aware of these specialties? What values do they place on them?
2. What kinds of specialties do children choose? To what activities do specialties lead them?
3. Do achievements in basic subjects benefit or suffer from a program which emphasizes pupil specialties?
4. Does the mutual respect and friendship among pupils increase or diminish in a specialties program?
5. Do pupils with specialties employ their classroom time more profitably?
6. Do the work habits of pupils improve in a specialty program?
7. Does a specialty program result in increased breadth of interest for all pupils?
8. What other values are indicated by interview and observation?

Chapter II

Pupil Choices of Specialties

While it might be possible to view the curriculum and set up a list of possible specialties, it is desirable to inquire what specialties already exist among school children. If children have specialties which are suitable for use in school, there seems to be no need for searching for other interests. However, if few pupils have established interests of their own, it may be necessary to suggest possible specialties to them.

The first step taken in the current study of children's specialties was an inquiry about their special interests. Among the 349 pupils in grades four, five and six, it was apparent that each child had several interests which were usable. The inquiry form which was used follows.

PUPIL SPECIALTY INQUIRY

Name.....Grade.....Date.....

School.....Teacher.....

Many of us have special interests that give us a lot of fun. We often work on our interests alone, but sometimes with other people.

We want to find out your interests so that we may be able to use them in some of our work.

List your interests:

1..... 4.....

2..... 5.....

3..... 6.....

Which one is your very special interest?.....

Which interest would you like to work on in school if we have time?

.....

How long have you had this special interest?

A month.....Six months.....A year.....More than a year.....

With whom do you work on this special interest?

Alone.....With your parents.....With a scout group.....

With a special friend.....With anyone else? (Name).....

What are some of the things you have made or done as a result of this special interest?..... .....

....

A tabulation of children's expressed specialties showed that *every child* could list several. No child listed fewer than two. Since there were spaces on the blank for only six special interests, it is quite possible that some children could list many more.

TABLE 1. Number of Interests Indicated by Children

Number of Interests Listed	*Grade IV*		*Grade V*		*Grade VI*	
	Pupils	*%*	*Pupils*	*%*	*Pupils*	*%*
6	74	64.9	48	43.2	70	56.0
5	20	17.5	18	16.2	32	25.6
4	12	10.5	22	19.8	13	10.4
3	8	7.0	10	9.9	8	6.4
2	0	0	12	10.8	2	1.6
Total	114		110		125	

The large number of interests listed made it important to inquire about the duration of these interests. Are they interests or merely temporary whims? We have the pupils' answers regarding the duration of only their "very special interest."

TABLE 2. How Long Have You Had This Special Interest?

	Grade IV		*Grade V*		*Grade VI*	
	Pupils	*%*	*Pupils*	*%*	*Pupils*	*%*
A month.....	20	17.5	21	18.9	10	8.0
Six months.....	12	10.8	15	13.5	18	14.4
One year.....	16	14.0	21	18.9	17	13.6
More than a year...	66	57.8	53	47.7	80	64.0
Total.....	114		110		125	

If one may trust the children's replies, the majority of students in all grades have had their special interest more than a year. Eighty per cent of the pupils in grades four and five claim a duration of six months or more, while 92 per cent of the sixth graders state a similar length of time for their first choice of specialty. It is apparent that most children have special interests which are well established.

Parent Inquiry Regarding Pupil Specialties

In order to acquaint parents with the school concern about pupil specialties, an inquiry form was sent to parents of all 349 children who were in the study. The form included questions about children's specialties and values the child and his family had derived from the specialties.

The inquiry form is presented below.

Child.....Grade.....Date.....

School.....Teacher.....

PARENT INQUIRY FORM

Name of Parent.....

Address.....

Occupation.....

1. List below any hobbies or interests which your child may have.
   a.....c.....
   b.....d.....

2. Which of these appears to be his special interest?

.....

3. How long has he had this special interest?
   a. a month.....( )
   b. six months.....( )
   c. a year.....( )
   d. more than a year.....( )
   Comments.....

4. Indicate how frequently you and your child work together on this special interest.
   a. weekly.....( )
   b. monthly.....( )
   c. two or three times a year.....( )
   d. never.....( )

5. Do you feel this specialty has helped develop family unity? yes ( ) no ( )

6. Check the groups with which he uses this specialty.
   a. school group.....( )
   b. church group.....( )
   c. scout group.....( )
   d. family group.....( )
   e. neighborhood group.....( )
   f. independently.....( )
   g. other group.....( )

7. This special interest has helped your child by encouraging him to:
   a. work by himself...( )
   b. share things.....( )
   c. use time wisely....( )
   d. gain self confidence.( )
   e. lead other children.( )
   f. feel important.....( )
   g. find other interests.....( )
   h. gain valuable information ( )
   i. make articles of value....( )
   j. keep out of mischief.....( )
   k. work with others.....( )
   l. other.....( )
   name

8. This special interest has hindered your child by causing him to:
   a. spend too much time with this interest.....( )
   b. give up other interests.....( )
   c. be alone too often.....( )
   d. develop a wrong sense of values.....( )
   e. develop too great a specialization.....( )
   f. gain very limited or no value from interest.....( )
   g. avoid sharing things.....( )
   h. other.....( )
   name

9. What are your own special interests or hobbies?

....

....

Number of Special Interests of Children as Indicated by Parents

Although the inquiry form for parents provided space for listing only four interests, some parents listed as many as seven. The high frequency of four interests, however, is due to the limitations of the inquiry form.

TABLE 3. Number of Children's Interests (Parent Inquiry)

Number of Interests	*Grade IV*		*Grade V*		*Grade VI*	
	No.	*%*	*No.*	*%*	*No.*	*%*
7	3	2.8	0		0	
6	0		0		1	.8
5	9	8.3	0		6	5.0
4	34	31.3	56	52.1	53	44.0
3	30	27.6	21	19.5	33	27.4
2	25	22.9	19	17.7	20	16.6
1	4	3.7	5	4.7	2	1.6
0	3	2.8	6	5.6	5	4.2
No reply	6	5.6	3	2.8	5	4.2

The high percentage of returns indicates an unusual parent interest in the inquiry. The percentage of return for grade four was 94, of grade five, 97, and of grade six 96.

One of the first concerns with the results of the parent inquiry form was whether or not the choices indicated by the children were confirmed by the parents. This comparison was made by discovering the agreements of interest of the child as expressed by the parents and by the children. It must be remembered that while six spaces were provided for interests on the child's sheet, only four were provided for the parents.

TABLE 4. Number of Interests Expressed by Children Confirmed by Parents

Number of Interests Confirmed	*Grade IV*		*Grade V*		*Grade VI*	
	No.	*%*	*No.*	*%*	*No.*	*%*
4	4	3.7	10	9.4	6	5.0
3	20	18.5	30	28.3	32	26.6
2	38	35.2	32	30.2	42	35.0
1	38	35.5	24	22.6	28	23.3
0	8	7.4	10	9.4	12	10.0
Total replies	108		106		120	

Since children reported many more interests than did parents, the disparity between children's and parents' report of interests is not surprising. An agreement between parents and children in one or more interests appears in about 90 per cent of all comparisons. Parents failed to confirm any of the stated interests of children in only eight cases in grade four, ten in grade five, and twelve in grade six.

The chief sources of disagreement came in "lessons" given outside of school, especially various forms of music lessons. Most parents listed

the musical instruments being studied as one of the child's specialties; only three girls among the 349 children placed musical interests on their lists.

Summaries of other items in the parents' check list will be found in Chapter 4.

Specialties Chosen for Classroom Study

Each child listed several interests and chose one which he felt was his "very special interest." The very special interest, however, might not always be suitable for classroom use. Many children had several interests of equal intensity and it made little difference to them which was chosen for classroom use.

Several factors in the choice of specialties were discussed with the children. The first was that of practicability for use in the classroom while others were studying. Obviously, a child could not practice tumbling, tap dancing, archery, or baseball in the classroom. He could, however, read record books, books by experts, magazines, and other sources of information about athletic activities. He could also make his own notebooks, collections of pictures, prepare exhibits, or talks on sports. Transferring active sports to a literary activity diminished the zeal of some boys for choosing sports specialties. A second limiting factor was that of storage and working space required for the development of some specialties. In some cases, this seemed insurmountable and the pupil agreed to another of his choices of specialty. In many specialties the storage problem was solved by boxes and shelves and working space by work benches and tables.

It was agreed also that specialties would need to be self-directed. The teacher could not be expected to be expert in all specialties, nor could she devote much time to assisting an individual child with his specialty. The various possibilities of reading, collecting, constructing, preparing notebooks, folders, exhibits, sending for materials, getting help of the librarian or of parents, the problems of expense, and other factors were discussed with pupils. Each child made his own plans for pursuit of his specialty, but the plans were changed as new opportunities appeared.

The permanence and scope of the specialties were also discussed. Specialties which would be useful for a long time were preferred to those which appeared more transitory. Leisure time values of the specialties were considered. The possibilities of growth in the specialty were also important; those which led to many types of activity were preferred to more limited ones. Specialties in which there were many things to read and for which books, magazines, pamphlets, could be made available were selected over those in which the study materials were few or difficult to obtain. In many cases, children consulted the librarian and parents before deciding on a specialty.

The relationship to school subjects presented in the grade was also a factor, but not necessarily a critical one. While it had been the intent of the study to relate specialties closely to the subjects taught, the discovery of the great number of established interests led to a change in plan. It seemed as valuable to discover the advantages of the use of established interests as to direct children's attention to new fields of

specialty, even though such specialties would have a closer relationship to the curriculum.

The specialties chosen by the children for classroom use are shown in the following lists:

Boys' Specialties in Grades 4, 5, and 6

	Number
Aircraft	2
Air Defenses	1
Airplanes	
— general	7
— jets	3
— development	1
— history of	1
Alligators	1
Archery	1
Astronomy	8
Autograph Collection (U. S. Senators)	1
Automobiles	
— general	6
— trucks	3
— sport cars	1
Atomic Energy	1
Baseball	6
Birds	6
Boats	9
Cartoons	1
California	1
Coins	7
Colonial Times	1
Chemistry	4
Dogs	2
Engines	2
Electricity	4
Electronics	1
Farming	1
Fishing	5
Florida	1
Flowers (wild)	1
Football	2
Gardening	1
Guns	3
Horses	4
Insects	1
Jumping	1
Knights	1
Lumbering	3
Magic	2
Medical Information	1
Microscopic Study	2
Model Making	1
National Parks	1
Natural History	3
Nature (growing things)	1
News Sending	1
Ocean Life	1
Presidents of U. S.	1
Prehistoric Life	1
Radio (repair)	5
Reading (dioramas of books)	1
Rome	1
Ships	1
Skiing	1
Slide Rule	1
Sports (general)	6
Snakes	1
Solar System	2
Soldiers (British Empire)	1
Stamps	10
Stones	
— general	5
— precious	1
Swimming	1
Telephones	3
Telegraphing	1
Texas (history of)	1
Tennis	1
Trains	8
Transportation	2
— marine	1
Wars	
— American Revolution	2
— English	1
Weapons	1
Wood Working	2
Writing (history of)	1
No Specialties	2

Although most pupils had only one specialty, some had two or even three; this accounts for a total of more specialties than pupils.

The specialties chosen by boys were overwhelmingly in the field of science and mechanics; social studies were second and animals-nature study third, followed by sports. Several of

the specialties could be classified under more than one heading, but in the table below the specialty is assigned to the classification in which the major emphasis of the activity seemed to center.

	Number
Science-Mechanics	90
Social Studies	37
Animals-Nature	34
Sports	20
Language Arts	3
Miscellaneous	4

The high rating of science and mechanics as specialties among boys indicates the "corrective" nature of specialties. The elementary school curriculum is more often centered around social studies, with the activities in science more often emphasizing nature study. It is apparent that boys are concerned with applications of the physical sciences. This should be reassuring to some alarmists who feel that interest in science is diminishing. It should also direct school people to a reappraisal of the curriculum for boys of this age. If we are to follow the dictum "build on the child's interests," it is apparent that the curriculum needs some revision for boys.

Social studies interests ran higher among boys than among girls. Stamps and coins were tabulated with social studies, and these accounted for seventeen of the thirty-seven choices. Several of the science-mechanics specialties could be classed with social studies — those concerned with the history or development of aircraft or automobiles especially. Social studies specialties might well tie in with the science and applied arts interests of boys.

Girls' Specialties in Grades 4, 5 and 6

	Number
Acting	1
African Violets	1
Animals (wild)	9
Art	7
Artists	1
Astronomy	1
Baseball	1
Birds	21
Butterflies	1
Cats	6
China (the country)	1
Clothing Design	2
Coins	2
Cooking	2
Composers	1
Costumes (foreign)	1
Dogs	17
Dolls	
— foreign	2
— old-fashioned	2
Fishing	1
Flags	3
Flowers	11
Friends	1
Frontiersmen	1
Glassware	1
Horses	18
Ice Skating	1
Insects	1
Inventors	1
Interior Decorating	1
Islands (Pacific)	1
Living Movie Stars	2
Music	1
Mythology	1
Natural History	2
Nature (growing things)	2
Needham (town history)	1
Nursing	1
Pets (care of)	1
Piano Composers	1
Poetry (writing of)	1
Photography	1
Presidents of the U. S.	1
Post Cards	2

Reading	2
Rabbits	1
Sewing	
— general	4
— flags	1
— doll clothes	2
Shells	1
Shelters	1
Sports (water)	2
Southern States	1
Stamps	8
Swimming	2
Transportation	1
Trees	1
Washington, D.C.	1
Wood Specimens	1
Writing	
— plays	2

Girls' choices of specialties followed a very different pattern from that of boys. Animals and nature study appeared most often on their list, followed by social studies and applied arts. Fine arts, which did not appear at all on the boys' list, came fourth.

Classification	*Number*
Animals-Nature Study	93
Social Studies	24
Applied Arts	21
Fine Arts-Music	12
Language Arts	9
Sports	7
Science and Mechanics	1
Miscellaneous	2

Animals had a particular interest for girls. Birds were selected as specialties by twenty-one girls, horses by eighteen, dogs by seventeen, wild animals by nine, and cats by six. The only other specialties that were chosen by more than five girls were flowers (11), stamps (8) and art (7).

Although specialties which could be classified as language arts were few in number for either boys or girls, all specialties included reading, writing, and conversation. Reading was chosen as a specialty by only one boy, and his specialty was making dioramas of books. Two girls chose to write plays, and one wrote original poems.

Chapter III

An Experiment with Pupil Specialties

THE INTRODUCTION of a pupil specialties program, as with any program in education, must have the co-operation of teachers and of school authorities. The Town of Needham, Massachusetts, appeared to be excellent for the purpose. The elementary supervisor, Mr. Leonard J. Savignano, the junior author of this bulletin, was interested in the study and was awarded the Warren Research Fellowship in Education at Boston University, in order to devote full time to the program. The approval of the superintendent of schools and the school committee was obtained, and the teachers in the intermediate grades were invited to discuss the proposal. Of the thirty-three teachers, twenty-eight volunteered to take part in the program.

Equating Experimental and Control Classrooms

In order to discover changes resulting specifically from a specialties program, it is necessary to set up experimental and control groups. The groups should be equated as nearly as possible in intelligence, school achievement, and other pertinent factors. The measures used for equating groups in this study were the following:

1. Mental ability. Otis Quick-Scoring Mental Ability Test, Beta Form.
2. Academic Achievement. Stanford Achievement Test.
3. General Vocabulary-Interest. The Boston University Word Association Test. This test measures vocabulary knowledge in forty-five out-of-school interests of children.
4. Classroom adjustment of pupils. Each pupil was rated by the teacher on eight items: using references, working independently, budgeting work time, sharing materials, leadership, helping others, self-confidence, self-control.
5. Social acceptance. Modification of the Bogardus Social Distance Scale. Pupils indicated their attitudes toward each of their fellow students by checking under one of four headings: Would like him as one of my best friends; Would want him in my group, but not as a close friend; Would like to be with him once in a while, but not often; Would rather not work with him.

It is equally important that the teachers of the experimental and control groups be approximately equal in teaching ability. While this is a nebulous factor, difficult to measure objectively, the attempt was made to equate teachers. Each teacher volunteering for the study, whether she was to be chosen as an experimental or control teacher, was rated by supervisor and principal on the following factors: Wide use of materials, using community resources; provision for individual differences of pupils; ability to plan interesting lessons; presentation of material to arouse interest of pupils; adaptability of teaching methods;

obtaining pupil participation; concern for social growth of pupils; discipline and self-control of pupils; stimulation of work-study habits; evaluation of pupil needs; ability to obtain subject-matter objectives. Each item was ranked on a five-point scale, and a total score obtained for each teacher. This total score, and years of teaching experience, were considered in pairing teachers for the experimental and control groups.

When the information from the preliminary testing of pupils and the rating of teachers was available for all teachers who volunteered for the study, the classrooms were divided into experimental and control groups. The following table shows the distribution of these groups:

	Experimental		*Av. Class*	*Control*		*Av. Class*
	Classrooms	*Pupils*	*Size*	*Classrooms*	*Pupils*	*Size*
Fourth Grade....	4	114	28.5	4	120	30
Fifth Grade.....	4	110	27.5	4	106	26.5
Sixth Grade.....	4	125	31.2	4	121	30.2
Total.....	12	349	29.1	12	347	28.9

It will be seen that the average size of classes was the same for both groups, an important concern when it is sometimes argued that special programs may be used when classes are exceptionally small but not when they are as large as thirty pupils. Initial test scores for experimental and control groups will be presented later. Four of the twenty-eight teachers volunteering for the experiment were dropped from the study in order to equate classrooms more accurately.

General Status of Community and Schools

The town chosen for the study has a population of about 20,000 and is a residential suburb of Boston. It has some light manufacturing, storage and servicing facilities, but it is essentially residential. Approximately 90 per cent of the families own their homes. The town ranks above average in per pupil expenditures for elementary schools. The average intelligence of the pupils is slightly above 110.

There are seven elementary schools with kindergarten through grade six, three of which are "single unit" schools with one room per grade and four have two rooms per grade. All of the schools were represented in the study. The general community reactions to the elementary schools are favorable and standard tests show satisfactory achievement in the basic subjects.

Three of the schools have central libraries but none has a librarian, either full- or part-time. The other schools have room libraries. All rooms have one or more sets of encyclopedias or similar reference sets. The Town Library is highly co-operative, making classroom loans of books, scheduling classroom visits and providing instruction in library use. Since library resources are especially important in a program of specialties, the whole-hearted co-operation of the Town Library was most helpful.

Suggestions to Teachers

At the preliminary meeting of teachers, the general nature of the

program was explained. They were told that the main point of the study was to see the values of pupil specialties when used by pupils in addition to the regular class work, with the emphasis upon pupils' use of spare time when the class work had been completed. No attempt was made to minimize the extra work involved, nor the interruptions of classroom work by testing. Teachers were asked to volunteer for the study without knowing whether they would be in the experimental or control groups. Twenty-eight of the thirty-three teachers volunteered to take part.

Subsequent meetings of the experimental and control group teachers were held separately in order to emphasize the specialties program in the experimental classes only. No suggestion was made that control classes be deprived of any of the individual techniques ordinarily used. There were three meetings of the twelve experimental teachers, in which general techniques of selecting, developing, and using specialties were discussed. Most of the help given to teachers was through classroom visits by the supervisor.

Techniques in the Experimental Rooms

The first approach to special interests was through the pupil questionnaire on specialties presented in Chapter 2. Children listed their various interests and were told that they might select one as their specialty on which they could work during free time in the classroom. They were given some advice choosing specialties which would be possible for them to work on in the classroom. Individual specialties were discussed in relation to their feasibility, with some being rejected as unsuitable on account of lack of equipment or of space for it, too great amount of noise produced while others studied, limitations on possibilities of growth, too great expense. At the same time, possible activities in relation to the specialties were discussed: construction, collections, exhibits, drawings and illustrations, reading, writing, planning. The practical aspects of storage, work benches, tools, etc., in relation to some of the specialties were considered and decisions were made in regard to these problems.

For the few children who had no established specialty, it was necessary to suggest possible fields of interest. Such children often joined others in their specialties, or accepted the suggestions of the teacher.

When children had made their choices, any free time in the classroom was devoted to specialties. The desire to work on specialties made it important to finish assigned work early. Several teachers found it desirable to give assignments of several days' duration in skills subjects so that the completion of the assignments would leave longer time for the specialties. Pupils often worked on specialties before and after school, and much of the time spent on specialties was at home.

Sources of Materials

The sources of materials for specialties is best shown from the results of the interviews with pupils. It will be noted that the town library, the school library, the home, resource persons, and obtaining materials by mail were used in that order.

TABLE 5. Where Did You Find Information About Your Specialty?

Source	*Number of Pupils Using Source*			
	Grade IV	*Grade V*	*Grade VI*	*Total*
Town Library.....	71	74	69	214
School Library.....	68	59	68	195
Home.....	59	65	67	191
Resource person.....	43	37	46	126
Sent for materials....	26	35	35	96

TABLE 6. Types of Reference Books Used

Reference	*Number of Pupils Using Reference*			
	Grade IV	*Grade V*	*Grade VI*	*Total*
Encyclopedia.....	89	77	78	244
Magazines.....	82	67	71	220
Newspapers.....	47	33	32	112
Textbooks.....	38	17	46	101

It will be noted that in addition to using books furnished by the home, school, library, and outside sources, the children made use of various types of other references. The encyclopedia was found especially valuable, and it is interesting to note the wide use of magazines and newspapers.

Classroom Activities Related to Specialties

The types of activities in the class are shown from the results of the standard interviews with children after a semester of following the program.

TABLE 7. Pupil Activities Related to Specialties

Activities	*Number of Pupils Reporting*		
	Grade IV	*Grade V*	*Grade VI*
Kept folder of materials.....	47	70	45
Gave reports or demonstrations..	19	55	36
Kept a notebook.....	43	19	34
Made collections.....	24	24	25
Made models.....	13	14	18
Made maps, charts, graphs.....	0	10	8
Started another specialty.....	2	5	5
Wrote an original story.....	0	8	3
Joined a club.....	2	3	5
Made a visit.....	0	4	3

In addition to the activities listed above, several other classroom uses of specialties were noted. Two schools made a special project of specialty displays to which parents were invited. Several rooms arranged similar displays and invited other classrooms to see them. Some groups of pupils went to other schools and other classrooms in the same school to display and discuss specialties. In a few instances, children with the same specialties, but in different schools combined in pre-

paring exhibits and presentations to classrooms. Many of the individual and group reports were made during the language arts periods. Tape recordings were often made of the presentation so that the presentation could be played back and analyzed for improvement. In two cases, original plays were written, practiced, costumed and staged.

The main social contacts with specialties were informal. Children talked with each other at various times, showing their discoveries and products. They talked with parents and neighbors about specialties. Conversations with adults is indicated by the high frequency of use of "resource persons."

Measures Used in the Specialties Program

The specialties program was conducted from February to June in the spring of 1955. While a longer period of experimentation would be desirable, many useful findings resulted from the repetition of measures used at the beginning of the study. The measures repeated on both experimental and control groups are as follows:

1. Academic achievement. A second form of the Stanford Achievement Test. The purpose of this test was to compare gains of the experimental and control groups in regular school subjects.
2. General Vocabulary-Interest. A second form of this test was given to discover growth in out-of-school vocabulary which might result from specialties.
3. Classroom adjustment of pupils. The teachers rated the classroom habits of the pupils on the same forms as at the beginning of the study.
4. Social distance scale. Pupils rated all of the members of the class on the same scale as at the beginning of the study.

In addition, both groups wrote answers to the question, "What do you do when you have finished your school work and you have some spare time?

As a further evaluation, each pupil in the experimental group was interviewed individually. The interviewers followed a standard interview form which contained the following questions:

1. Where did you find information about your specialty?
2. What kinds of reference materials did you use to find information about your specialty?
3. How often did you work on your specialty?
4. With whom did you work on your specialty?
5. What are some of the kind of things you have made or done in connection with your specialty?
6. Why do you have a specialty? What does it do for you?

Chapter IV

Evaluation of the Pupil Specialties Program

At the end of Chapter I, the following questions were posed in regard to the use of specialties in the classroom:

1. Have most pupils developed specialties outside of school? Are parents aware of these specialties, and what values do they place on them? These questions were answered through the data presented in Chapter 2.
2. What kinds of specialties do children choose? This was answered in Chapter 2. To what activities do their specialties lead them? Evidence on this point was presented in Chapter 3.

This chapter presents answers to the remaining questions:

3. Do achievements in basic subjects benefit or suffer from a program which emphasizes specialties?
4. Does the mutual respect and friendship among pupils diminish or increase?
5. Do pupils employ their free time in the classroom more profitably?
6. Do pupils improve in their work habits?
7. Does breadth of interests increase?
8. What other values are indicated?

Tabulations of test and questionnaire results and comparisons between the experimental and control groups are presented below.

Do Achievements in Basic Subjects Benefit or Suffer from a Pupil Specialties Program?

Since achievements relate closely to intelligence, any comparison between gains of experimental and control groups must show that the groups are approximately equal in mental ability. The Otis Quick-Scoring Test, Beta, was used as a measure.

TABLE 8. Average Mental Ages of Experimental and Control Groups

	Grade IV		*Grade V*		*Grade VI*	
Average Mental Age	*Number*	*M.A.*	*Number*	*M.A.*	*Number*	*M.A.*
Experimental Groups...	114	134.6	110	144.2	125	161.0
Control Groups.....	120	135.3	106	143.2	121	160.7

It will be seen that the mean mental ages of the groups are equal; in only one grade there was a difference of as much as one month of mental age. The standard deviations of the groups were also almost identical, showing similar distributions of mental ability in the experimental and control groups. Means and distributions for chronological ages were equally comparable for the groups.

Equivalent forms of the Stanford Achievement Tests were used to measure growth in school achievement by measuring before and after the study. The following table presents the results of the testing.

TABLE 9. Gains in Academic Achievement (One semester)

	February Grade	*June Grade*	*Gains*
Grade IV			
Experimental.....	5.02	5.86	.84
Control.....	4.95	5.57	.62
Grade V			
Experimental.....	5.78	6.08	.30
Control.....	5.74	6.05	.31
Grade VI			
Experimental.....	7.02	7.41	.39
Control.....	7.03	7.46	.43

There were no statistically significant differences in gains in school achievement between the experimental and control groups during the study. In the short time of one semester, any differences in achievement are unlikely to appear unless there is a very marked difference in method. Regular classes in all subjects were the same for both groups.

Do Pupils' Feelings Toward Each Other Change in a Specialty Program?

This factor was measured by the "social distance scale" in which children rated their classroom associates as to how closely they wished to work with them. The highest rating is four, indicating "would like him for my best friend"; the lowest rating is one, indicating "would prefer not to work with him." The ratings assigned each child by his associates were averaged, and the February and June ratings compared for experimental and control groups.

While these gains are not large they are all in the same direction, favoring the experimental group.

TABLE 10. Average Social Distance Ratings

	February	*June*	*Gains*
Grade IV			
Experimental.....	2.63	2.80	.17
Control.....	2.90	2.95	.05
Grade V			
Experimental.....	2.73	2.98	.25
Control.....	2.71	2.72	.01
Grade VI			
Experimental.....	2.73	2.98	.25
Control.....	2.79	2.98	.19

The differences in gains were statistically significant in grades four and five, with critical ratios of 2.76 and 4.0 respectively. There seems to be a definite tendency for children who have specialties to feel a greater friendship and respect for their fellows who also have specialties.

Do Pupils Employ Their Free Time in the Classroom More Profitably?

Children in both the experimental and control groups were asked the question in June, "What do you do when you have finished your school work and you have some spare time?" Since this was an "open-end" question to which pupils wrote answers of different sorts, separate tabulations are made for the two groups.

TABLE 11. Use of Free Class Time

Specialty Groups	*Grades*			*Control Groups*	*Grades*		
	IV	*V*	*VI*		*IV*	*V*	*VI*
Work on my specialty	113	78	117	Read a book	31	49	71
Do other school work	2	7	0	Study other subjects	20	38	25
Help clean the room	1	2	1	Draw pictures	28	3	17
Read a book	1	1	1	Help the teacher	8	1	0
Finish some work	3	0	0	Go to library table	1	6	0
Work on spelling	1	1	1	Wait for teacher to suggest something	0	1	6
Work with other children	1	0	0	Talk to my neighbor	6	0	0
Do errands	0	0	1	Study geography	5	0	0
				Clean my desk	3	0	1
				Work on special projects	0	4	0
				No spare time	0	6	0
				Miscellaneous	7	1	0

Children with specialties are clear in their answers to this question: they work on their specialties. In the control classrooms, except for reading a book, or studying other subjects, it is clear that they must search for ways to employ their time.

Do Pupils Improve in Their Work Habits?

Teachers in both experimental and control groups rated their pupils on eight items, with four descriptions for each item. The factors rated were the following: using references, working independently, budgeting work time, sharing materials, leadership, helping others, self-confidence, self-control. The maximum score for a pupil receiving top ratings on all items is 32.

TABLE 12. Work Habit Ratings

	February	*June*	*Gains*
Grade IV			
Experimental	22.0	27.6	5.6
Control	23.5	24.2	.7
Grade V			
Experimental	23.6	24.9	1.3
Control	21.1	22.0	.9
Grade VI			
Experimental	22.1	25.4	3.3
Control	23.2	23.2	.0

In teacher ratings of pupils in regard to work habits, the improvement was marked in the specialties classrooms. The difference in gains found in grade four was statistically significant, with a critical ratio of 4.4; the difference in gains in grade six had a critical ratio of 2.0.

Since these ratings are subjective, it is possible that the teachers in the specialty groups colored their ratings of pupils to favor the study. Teachers were warned of this possibility, however, and insisted that there was a marked change in work habits of their pupils.

Does Breadth of Interests Increase?

The only measure of breadth of interests was a Word Association Test, developed as a group masters' project at Boston University.[1] The test had two equivalent forms, was developed for intermediate grades, and contains 245 words which children are asked to place in the correct fields. The words are drawn from 35 different out-of-school fields: sports, arts and crafts, applied arts, vocations, nature study, hobbies, etc. It appeared to be a suitable instrument for discovering whether or not pupils gained in specialized knowledge by being with a specialties group.

TABLE 13. Out-of-School Vocabulary Scores

	February	*June*	*Gains*
Grade IV			
Experimental.....	93.1	108.5	15.4
Control.....	84.7	98.6	13.9
Grade V			
Experimental.....	108.3	117.1	8.8
Control.....	113.7	117.2	3.4
Grade VI			
Experimental.....	132.6	145.5	12.9
Control.....	133.1	146.2	13.1

Grades four and five specialty groups made greater gains than did the control groups in out-of-school vocabulary. These differences were not statistically significant. In grade six, there was a difference of .2 of a word between the groups, favoring the control group. The out-of-school vocabulary did not show the expected growth for the specialties groups in this study.

What Other Values Are Indicated in Specialties?

One of the results of specialties was that children and parents were brought together through the specialty. In the interviews with children in the specialty program, the question was asked, "With whom do you work on your specialty?" The answers showed that various members of the family helped on the specialties.

[1] Joel Wolfson et al. *The Construction and Evaluation of a Word Association Test for Intermediate Grades.* Unpublished Ed.M. Thesis, Boston University, 1954.

TABLE 14. With Whom Do You Work on Your Specialty?

Persons with whom he works:	*Number of Pupils Reporting*		
	Grade IV	*Grade V*	*Grade VI*
Mother	67	66	43
Father	51	57	50
Brother	14	11	10
Sister	14	12	10
Member of class	8	31	36
Others	12	15	20

Parent ratings of values of specialties are found in the table below. These values were suggested to the parents in the inquiry form at the outset of the study and refer to the child's specialty indicated by the parent at that time. The ratings are of interest, however, since they show parental reactions to children's special interests.

TABLE 15. This Specialty Has Helped Your Child by Encouraging Him To

	Number of Replies		
	Grade IV	*Grade V*	*Grade VI*
Work by himself	61	55	59
Gain self-confidence	55	56	58
Gain valuable information	46	38	36
Use time wisely	35	32	42
Work with others	35	36	37
Feel important	18	33	34
Share things	21	19	37
Keep out of mischief	24	20	20
Lead other children	15	15	24
Find other interests	17	19	12

The five values most frequently checked by parents regarding children's specialties are the following: works by himself, gains self-confidence, gains valuable information, uses time wisely, and works with others.

There were very few negative comments expressed by parents about their children's specialties. The only items which were checked with any frequency were the following:

TABLE 16. This Specialty Has Hindered Your Child by Causing Him To

	Number of Replies		
	Grade IV	*Grade V*	*Grade VI*
Spend too much time with it	12	9	5
Give up other interests	5	8	8
Be alone too often	6	8	4

The reactions of pupils toward the values of their specialties, expressed in the interviews at the end of the study, were not especially profound, but are worthy of notice:

TABLE 17. Why Do You Have a Specialty?

Reason	*Number of Pupils*		
	Grade IV	*Grade V*	*Grade VI*
It is fun	96	86	96
It helps me learn	96	88	81
It is good to know a lot about a thing	48	33	42
Teacher expects me to have a specialty	0	0	2
Other	8	17	1

Chapter V

Summary: Suggestions for Further Studies

TWELVE CLASSROOMS, involving 349 pupils in grades four, five, and six followed a program of pupil specialties for one semester. Each child chose a specialty, usually from interests already established, to work on during his free time in the classroom. The activities related to the specialty took the form of reports, booklets, folders, collections, products — all involved the use of reading and reference materials. The experimental classrooms were equated with twelve other classrooms in the same community, and comparisons were made of the achievements, social attitudes, and classroom habits of the children in the experimental and control groups. Results of inquiry forms to parents and children were also tabulated.

The main findings of the study were as follows:

1. Almost every pupil could list several specialties on which he wished to work. Every child listed two or more specialties; more than half listed six. These specialties were not mere temporary whims. More than half of the pupils reported that they had worked on the specialty more than a year.
2. Parents confirmed the children's statements about main specialties, but tended to list the outside "lessons" such as music, as children's interests.
3. Boys' choice of specialties for classroom use were overwhelmingly in the field of science and mechanics, followed by social studies, animals-nature, and sports.
4. Girls emphasized quite different specialties from those of boys. The chief choices of girls were in the fields of animals, nature study, social studies, applied arts.
5. Sources of materials for specialties were in the following order: town library, school library, home, resource persons, "sent-for materials." All sources were widely used. Encyclopedias, magazines, newspapers, and textbooks also provided source material.
6. The classroom activities connected with specialties were, in order of frequency, as follows: kept a folder of materials, gave reports or demonstrations, kept a notebook, made collections, made models, made maps and charts, wrote an original story, joined a club, made a visit.
7. There were no significant differences in gains in school subject achievements between experimental and control groups. Although the fourth grade experimental group showed the greatest gain, the differences in other grades were slight.
8. In "social distance" as measured by how closely pupils wished to work with each other, the specialty groups showed superiority to the control groups.

9. The specialty pupils employed their free time in the classroom much more purposefully than did the control groups.
10. Teachers' ratings of pupils' work habits in the classroom showed uniform favorable change in all specialty groups. Slight gains only were reported by teachers in the control groups. The differences in gain were significant in grade four, and were also high in grade six.
11. Breadth of interest as measured by vocabulary tests on out-of-school topics showed little difference between specialty control groups.
12. Children with specialties worked with members of their families on their specialties. The high frequency of this activity indicates values of specialties in increasing family relationships.
13. Parents reported that specialties were helpful to children in many ways. The items of highest frequency were encouraging the child to: work by himself, gain self-confidence, gain valuable information, use time wisely, work with others. There were very few negative comments on specialties.
14. Children's reports of their reasons for specialties were as follows: it is fun, it helps me learn, it is good to know a lot about a thing.

Opportunities for Enterprise in Specialty Education

Neither the methods pursued nor the techniques of evaluation of the study presented in this bulletin are offered as the best that can be developed. Even if more positive results were shown, the results of a single study cannot be considered conclusive. Educational research is somewhat like research in farm crops — the merits of a newly developed variety of corn cannot be determined from a single planting on a half-acre plot in a single season. Climate, rainfall, soil variations, exposures, diseases, blights, and other factors must be taken into account. The variants in educational situations are even greater than those in farming, and no single experiment can be taken as conclusive. We always need repetitions of studies with many changes in approach, in classroom situations, in analysis of outcomes before the possibilities of strength and weaknesses of any educational proposal can be determined.

It is hoped that the possible values of specialties may encourage a variety of approaches to specialty education. The development of new educational patterns is essential if we are to discover ways of improving the effectiveness of education. The greatest need is for imagination and enterprise in developing new types of educational offering. Despite our resistance to federal or state direction of local schools, we seem to be much too standardized in program and techniques. We have not yet achieved the perfection in education that warrants such uniformity. We must not standardize our current ignorance. Among the many possible ways of improving educational service, further experimentation with specialties is highly desirable.

Neither a large-scale enterprise nor a controlled experiment is essential

to progress in pupil specialties. A single teacher or a single small school could supply the imagination to add values to the specialty approach. Educational progress results more from ideas which catch the interest of teachers than from statistical tables.

Suggested Variations in Approach to Pupil Specialties

Many possible variations in approach are suggested below. Some will require more planning than others, some will require more initiative and courage.

1. *Repetition of the same study in different situations and at different levels*
   - — Since the community used in the experiment was somewhat favored economically and intellectually, it would be desirable to repeat the study in less favored situations. Since the community selected was urban, it would be interesting to see how specialties would fare in a rural situation.
   - — While primary grade pupils are less likely to have established specialties, the usefulness of specialties might be studied, particularly among rapid learners. It might be preferable to use several short special projects rather than a single one of longer duration.
   - — Junior high school pupils in a departmentalized school, or pupils in grades seven and eight with a single classroom teacher, might profit more from specialties than do children in lower grades.
   - — The high school pupil might respond especially well to a specialties program. Departmental organization, however, would present some difficulties in specialties not related to subject areas. Specialties might well be encouraged in single subject fields.
   - — High delinquency areas, especially at the secondary school levels, would provide a good test of the values of a specialty program.
2. *Changing the technique of specialty selection and assignment*

Specialties might well be closely related to a course of study in any subject. This would be especially advantageous in a departmentalized program where the specialty would need to be within the individual teacher's subject field. A previous study of the specialties possibilities within a subject would provide a long list of topics or activities. The pupil would be asked to choose among these or suggest other relevant topics. Students might well assist in making the list of topics and activities. If the special reports are to be ready for presentation at the time the topic comes up for classroom study, it would be necessary to have the list of specialties prepared much in advance.

When the current study was planned, it was expected that specialties would be derived from the courses of study, with each child selecting special topics for later classroom report. In this way, there would be a definite objective for pupil reporting and each child would work on a series of shorter specialties throughout the year. Variation in interests were to be provided by permitting the child to choose his specialties from the subject areas of his highest

interest. When the preliminary inquiry showed that every child listed several different established specialties, the program was changed. It seems that a specialties program related more closely to subject areas might provide a richer amount of service to all children in the classroom. Using established interests may limit rather than broaden the child's intellectual growth.

More specialties and shorter periods of study on them would provide an interesting program. For the less adventurous teacher, they would appear especially useful. It is very easy to say to a child, "A month from now we will be studying the solar system. Look at what our book tells about it. See how much more you can find out about it. Could you make charts, models, or drawings which would give us better information?" Many teachers use this type of special assignment, but relatively few develop a systematic plan for its frequent use.

The individual assignments which accompany various types of unit teaching have high promise. Many teachers reject unit teaching, however, because of the great variety of library materials required and the difficulty of management of the unit as compared to textbook teaching. A program of short subject related specialties is easier to manage and seems likely to have greater acceptance than unit teaching. Group projects involving a few pupils rather than all members of the class are also relatively simple to plan. The pursuit of group study does not necessarily preclude individual specialties in addition. It would be interesting to discover the relative merits of group projects and individual study.

It would be quite possible to plan a useful program of specialties around objectives not related to any subject. Vocational specialties have high interest in secondary schools; avocational and leisure time specialties directed toward permanent interests would be highly valuable. Specialties might be related to Boy Scout programs, club work, or established community ventures.

3. *Making specialties "curricular"*

If a high value is set on specialties, there might be some point in making them a part of the school requirements, with a place in the report to parents and on the pupil's permanent record. It is debatable whether or not the values in a specialties program would be enhanced by such a requirement.

4. *Individualizing assignments in regular classes to provide more time for specialties*

In the experiment reported in this bulletin, most of the instruction was in uniform assignments for children in groups or in the class as a whole. This type of instruction provides free time in rather short periods. In skills subjects such as spelling, arithmetic and handwriting, ten-day assignments would permit more rapid or more diligent workers to have several days free from these subjects. The wide range of levels of ability would indicate that the practice is educationally desirable. Content subjects in which ideas are developed through class discussion would not be suitable for individual progress rates. If memorization of the textbook is the method of instruction, however, there would be no loss in adjusting these to individual working rates.

5. *Reporting specialties programs which have been successful*

Specialties in education are not new. Many teachers have used specialties as a means of providing for gifted pupils, delinquent or discouraged pupils, or pupils who need security and confidence. Specialty programs have been used in connection with many high school subjects and guidance programs. The unit method of instruction provides many opportunities for specialties. It would be highly desirable for teachers who have found specialties educationally valuable to report their methods and findings.

FUTURE ISSUES

April, 1956. ***Forecasting Juvenile Delinquency*** **by William C. Kvaraceus.**

Extensive consideration of two promising devices now available to professional workers concerned with the prevention and control of juvenile delinquency.

October, 1956. ***Methods of Developing the Speaking Voice in the Elementary School*** **by Wilbert L. Pronovost.**

Suggested techniques and lesson plans using existing classroom materials.

December, 1956. ***High Interest — Low Vocabulary Reading Materials*** **(a selected book list) by Helen Blair Sullivan and Lorraine E. Tolman.**

This issue will develop further the very useful book lists published by the School of Education during the past ten years. As many reading consultants and classroom teachers know, it is difficult to find books with high interest level and low vocabulary burden to use in the elementary school.

PREVIOUS NUMBERS AVAILABLE

December, 1955. ***Adjusting to Individual Differences in English*** **by Olive S. Niles and Margaret J. Early. Postpaid price, $1.00.**

Wide differences in skills, abilities, and attitudes among pupils in secondary school English classes make the use of the single textbook and the uniform assignment unproductive and discouraging to both pupils and teachers. This issue deals with ways of adapting the teaching of reading, writing, and listening to these differences. Techniques of testing, materials for teaching, methods of classroom organization, and ways of stimulating genuine interests in the English program are suggested.